

Thursday, April 20, 2017 10:13:25 AM

Page 1

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:** **Run** **Start** ***NR1***
 QC: **Date:** **SPC (Y/N):** **Date:** **Stop** ***NR2***

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 159983

Thursday, April 20, 2017 10:13:25 AM

159983

Page 2

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 5/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 5/18/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference: (P.A.)SCHEDULED/C

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001								
	Location: _____								
140		0.00							
140	QC21- Final Inspection - Work Order Release								
QC	Memo	0.10							
Quality Control									

DAS
27
9-89

JUN 01 2017

DAS
21
9-89

JUN 01 2017

DAS
21
9-89

JUN 01 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Picklist Print

Thursday, April 20, 2017 10:13:23 AM

Page 1

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

600.0129 *600 0129* VHB TAPE 75935A651		Purchased	No			100	f	72.0000	8	8			
---	--	-----------	----	--	--	-----	---	---------	---	---	--	--	--

				Location	Loc Qty	Loc Code
				CCK096	72	
				m135867	72	

600.0990 *600 0990* Magnabond 6398 Part A Size 112 ml		Purchased	No			100	Each	22.0000	1	1			
--	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

				Location	Loc Qty	Loc Code
				PKG	22	
				M136586	1	
				M136862	8	
				M137073	12	
				M134249	1	

600.0991 *600 0991* Magnabond 6398 Part B Size 112 ml		Purchased	No			100	Each	22.0000	1	1			
--	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

				Location	Loc Qty	Loc Code
				PKG	22	
				m136586	2	
				m136862	8	
				m137073	12	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Picklist Print

Thursday, April 20, 2017 10:13:23 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No 100 Each 13.0000 1 1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck017

13

m136838

1

m1370073

4

m137321

8

600.1013 Purchased No 100 Each 35.0000 5 5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

35

m136345

10

m137150

25

646.2910 Manufactured No 100 Each 9.0000 1 1

646 2910

Deflector

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK050

9

155356

9

646.3001 Manufactured No 100 Each 1.0000 1 1

646 3001

Lower Cable Cutter Assembly

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck018

1

156876

1

10/7/2018

160/79

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By 	
								Lead hand / Supervisor Approval Verification 	
								QC / QA Coordinator Approval 	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____									

Picklist Print

Thursday, April 20, 2017 10:13:23 AM

Page 3

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3110
646 3110
Channel

Manufactured No

100 Each

3.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck020

3

156797

3

646.3210
646 3210
Support

Manufactured No

100 Each

5.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck020

5

155378

5

646.3301
646 3301
Upper Cutter Assembly

Manufactured No

100 Each

0.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

646.3510
646 3510
Strut

Manufactured No

100 Each

8.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

8

156767

8

646.3511
646 3511
Strut

Manufactured No

100 Each

2.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

2

156231

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval 		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	OTHER : _____					
☐ Misidentified	☐ Past Due						

Picklist Print

Thursday, April 20, 2017 10:13:23 AM

Page 4

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3610
646 3610

Filler

DAS
27
9-89

Manufactured No

100 Each

14.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

14

156880

14

646.3710
646 3710

Doubler

DAS
27
9-89

Manufactured No

100 Each

18.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK006

18

152594

18

646.3711
646 3711

Clip

DAS
27
9-89

Manufactured No

100 Each

7.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

7

156840

7

646.3712
646 3712

Clip

DAS
27
9-89

Manufactured No

100 Each

9.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

9

156884

9

646.3713
646 3713

Gusset

DAS
27
9-89

Manufactured No

100 Each

9.0000

1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

9

156776

9

Thursday, April 20, 2017 10:13:23 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : _____							

Picklist Print

Thursday, April 20, 2017 10:13:23 AM

Page 5

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3714
646 3714
Gusset

Manufactured No

100 Each

9.0000

1 1

DAS
6
9-89

DAS
28
9-89
MAY 31 2017

Location

Loc Qty

Loc Code

cck105

9

156761

9

646.3715
646 3715
Strut Doubler

Manufactured No

100 Each

6.0000

2 2

DAS
6
9-89

DAS
28
9-89
MAY 31 2017

Location

Loc Qty

Loc Code

cck105

6

158009

6

646.3716
646 3716
Gauge Bracket

Manufactured No

100 Each

8.0000

1 1

DAS
6
9-89

DAS
28
9-89
MAY 31 2017

Location

Loc Qty

Loc Code

cck105

8

156773

8

646.3717
646 3717
Doubler

Manufactured No

100 Each

4.0000

1 1

DAS
6
9-89

DAS
28
9-89
MAY 31 2017

Location

Loc Qty

Loc Code

cck105

4

155481

4

646.3718
646 3718
Custom Washer

Manufactured No

100 Each

5.0000

2 2

DAS
6
9-89

DAS
28
9-89
MAY 31 2017

Location

Loc Qty

Loc Code

cck105

5

155395

5

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By 	
								Lead hand / Supervisor Approval Verification 	
								QC / QA Coordinator Approval 	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Page 6

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3719
646 3719
Doubler

Manufactured No

100 Each 8.0000 2 2

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

8

156810

8

646.3810
646 3810
Bracket

Manufactured No

100 Each 8.0000 2 2

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

8

154964

8

646.3811
646 3811
Radius Block

Manufactured No

100 Each 5.0000 1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

5

156212

5

646.3812
646 3812
Gusset Bracket

Manufactured No

100 Each 0.0000 2 2

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

646.3813
646 3813
AS350 Strut Bracket

Manufactured No

100 Each 5.0000 1 1

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

5

156801

5

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By BAC TS GB-C																																																									
								Lead hand / Supervisor Approval Verification BAC TS GB-C																																																									
								QC / QA Coordinator Approval BAC TS GB-C																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Page 7

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3910

Manufactured No

100

Each

9.0000

4

4

646 3910

Shim

**

DAS

6

9-89

MAY 31 2017

Location

Loc Qty

Loc Code

CCK106

9

151458

1

156793

8

646.3911

Manufactured No

100

Each

8.0000

1

1

646 3911

Shim

**

DAS

6

9-89

MAY 31 2017

Location

Loc Qty

Loc Code

CCK106

8

126229

8

646.3912

Manufactured No

100

Each

7.0000

4

4

646 3912

Shim

**

DAS

6

9-89

MAY 31 2017

Location

Loc Qty

Loc Code

CCK106

7

156874

7

646.3913

Manufactured No

100

Each

47.0000

1

1

646 3913

Shim

**

DAS

6

9-89

MAY 31 2017

Location

Loc Qty

Loc Code

CCK106

47

126060

47

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By TS 88-0																																																									
								Lead hand / Supervisor Approval Verification TS 88-0																																																									
								QC / QA Coordinator Approval TS 88-0																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Page 8

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.9410

Manufactured No

100

Each

56.0000

1

1

646 9410

Shim

**

DAS MAY 3 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck011

56

140671

56

647.0112

Manufactured No

100

Each

0.0000

2

2

647 0112

Strut Bracket

**

DAS MAY 3 1 2017

DAS
27
9-89

647.7703

Manufactured No

100

Each

0.0000

2

2

647 7703

Strut Assembly

**

DAS MAY 3 1 2017

DAS
27
9-89

650.9201

Manufactured No

100

Each

20.0000

2

2

650 9201

Eyelet Bracket Assembly

**

MAY 3 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck127

20

156828

20

AN3-11A

Purchased No

100

Each

300.0000

10

10

AN3-11A

Bolt

**

MAY 3 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

over003

100

m136192

100

ST349

200

153855

200

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-12A
Bolt
AN3-12A

Purchased No

100 Each

236.0000

2 2

**

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

Location

Loc Qty

Loc Code

over003

206

153854

206

ST349

30

m135603

30

2

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

AN3-13A
Bolt
AN3-13A

Purchased No

100 Each

46.0000

1 1

**

Location

Loc Qty

Loc Code

GA

16

m127070

16

ST349

30

153845

29

m136406

1

1

1

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

AN316C4R
Nut, Jam
AN316C4R

Purchased No

100 Each

21.0000

2 2

**

Location

Loc Qty

Loc Code

ST331

21

153850

21

2

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

AN3-3A
Bolt
AN3-3A

Purchased No

100 Each

68.0000

4 4

**

Location

Loc Qty

Loc Code

ST350

68

m137061

18

m137320

50

131391

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____						
Misidentified	☐	Past Due	☐							

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-4A Purchased No 100 Each 119.0000 10 10
AN3-4A
 Bolt

**

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

Location Loc Qty Loc Code

ST350 119
 m136579 119

137478

AN3-5A Purchased No 100 Each 329.0000 2 2
AN3-5A
 Bolt

**

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

Location Loc Qty Loc Code

FP001 4
 m136182 4
 GA 250
 m136986 250
 ST350 75
 m136182 75

2

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

AN3-6A Purchased No 100 Each 63.0000 2 2
AN3-6A
 Bolt

**

DAS
6
9-89

DAS
28
9-89

MAY 3 1 2017

Location Loc Qty Loc Code

ST350 63
 153844 63

137412

AN44-5A Purchased No 100 Each 17.0000 2 2
AN44-5A
 Eyebolt

**

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

ST339 17
 m136866 5
 m137075 12

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 11

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN4C7A
AN4C7A
BOLT

Purchased No

100 Each 32.0000 2 2

**

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST345

32

m136295

32

AN665-34R
AN665-34R
Clevis

Purchased No

100 Each 10.0000 2 2

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST330

10

153852

10

CCR264SS3-02
CCR264SS3-02
Cherry Rivet

Purchased No

100 Each 97.0000 36 36

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST321

97

M136986

97

CR3213-5-3
CR3213-5-3
Cherry Rivet

Purchased No

100 Each 132.0000 14 14

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

over003

100

m137320

100

ST319

32

m136851

32

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

Picklist Print

Page 12

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS20426AD5-7 Purchased No
MS20426AD5-7
 RIVET

100 Each 1,412.000 2 2
 **

DAS
 6
 9-89

MAY 31 2017

DAS
 28
 9-89

Location	Loc Qty	Loc Code
CCK004	703	
153848	703	
ST311	709	
M133922	709	

DAS
 27
 9-89

MS20470AD5-5.5 Purchased No
MS20470AD5-5 5
 Rivet

100 Each 662.000 8 8
 **

DAS
 6
 9-89

MAY 31 2017

DA
 28
 9-89

Location	Loc Qty	Loc Code
ST309	662	
m134063	662	

DAS
 27
 9-89

MS20470AD5-6 Purchased No
MS20470AD5-6
 RIVET

100 Each 552.000 8 8
 **

DAS
 6
 9-89

MAY 31 2017

DAS
 28
 9-89

Location	Loc Qty	Loc Code
ST309	552	
124089	552	

DAS
 27
 9-89

MS20470AD5-7 Purchased No
MS20470AD5-7
 Rivet

100 Each 353.000 3 3
 **

DAS
 6
 9-89

MAY 31 2017

DAS
 28
 9-89

Location	Loc Qty	Loc Code
ST309	353	
123425	353	

DAS
 27
 9-89

MS21042-08 MS21042L08 Purchased No
MS21042-08
 USE MS21042L08

100 Each 0.000 2 2
 **

DAS
 6
 9-89

MAY 31 2017

DAS
 28
 9-89

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042-3 MS21042L3 Purchased No

100 Each 0.0000 2 2

MS21042-3

**

Nut

MS21042L3 Purchased No

100 Each 2,166.000 61 61

MS21042I 3

**

Nut

Location

Loc Qty

Loc Code

FP001 100
m135945 100
GA 168
m134360 102
M136665 66
OVER007 1300
m134360 0
M136665 300
m137321 1000
ST303 598
m137073 98
m137166 500

137495

DAS
27
9-89

DAS
6
9-89
MAY 31 2017

DA
28
9-89

MS21042L4 Purchased No

100 Each 2,429.000 2 2

MS21042I 4

**

Nut

Location

Loc Qty

Loc Code

FP001 10
m133363 10
GA 154
m135058 154
OVER007 1600
m137321 1600
ST303 665
m136986 165
m137166 500

137371

DAS
27
9-89

DAS
6
9-89
MAY 31 2017

DDAS
228
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Page 14

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3 Purchased No

100 Each 102.0000 18 18

MS21047-3

Nut Plate

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
ST301	102	
m136442	3	
m136781	2	
m137075 //	97	

DAS
27
9-89

MS24693-C278 Purchased No

100 Each 35.0000 5 5

MS24693-C278

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
ST287	35	
m136554	35	

DAS
27
9-89

MS24694-S51 Purchased No

100 Each 297.0000 5 5

MS24694-S51

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
ST284	297	
m135442	47	
m136866	250	

DAS
27
9-89

MS24694-S54 Purchased No

100 Each 152.0000 2 2

MS24694-S54

SCREW

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location	Loc Qty	Loc Code
ST284	152	
153846	150	
m135948	2	

DAS
27
9-89

Thursday, April 20, 2017 10:13:24 AM

Shop Packet Print

Page 14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

235.0000

3

3

MS24694-S55

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST283

235

153847

235

**

DAS
6
9-89

MAY 31 2017

DA
28
9-89

MS27039-08-13

Purchased

No

100

Each

310.0000

2

2

MS27039-08-13

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST278

310

153849

310

**

DAS
6
9-89

MAY 31 2017

DDAS
28
9-89

MS27039-1-10

Purchased

No

100

Each

299.0000

2

2

MS27039-1-10

SCREW

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

284

m137164

284

**

DAS
6
9-89

MAY 31 2017

DA
28
9-89

MS27039-1-12

Purchased

No

100

Each

84.0000

6

6

MS27039-1-12

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

84

m136537

34

m137320

50

**

DAS
6
9-89

MAY 31 2017

DA
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Picklist Print

Thursday, April 20, 2017 10:13:24 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

153.0000

24

24

MS27039-1-16

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

103

m136851

3

m137320

100

24

DAS
27
9-89

MS27039-1-19

Purchased

No

100

Each

167.0000

22

22

MS27039-1-19

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

87

m137075

87

22

DAS
27
9-89

MS27039-1-20

Purchased

No

100

Each

77.0000

2

2

MS27039-1-20

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

77

m136554

77

2

DAS
27
9-89

MS27039-1-21

Purchased

No

100

Each

147.0000

4

4

MS27039-1-21

Screw

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

147

m127904

147

4

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

Picklist Print

Thursday, April 20, 2017 10:13:25 AM

Work Order ID: 159983

159983

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017

Required Date: 5/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

1,410.000

144

144

NAS1149F0332P

Washer

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

275

m133709

275

ST262

1135

m136835

8

m137075

1127

137412

NAS1149F0363P

Purchased

No

100

Each

72.0000

2

2

NAS1149F0363P

WASHER

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

72

124555

72

2

NAS1149F0432P

Purchased

No

100

Each

537.0000

4

4

NAS1149F0432P

WASHER

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

537

M136442

537

137361

NAS1149FN832P

Purchased

No

100

Each

622.0000

4

4

NAS1149FN832P

Washer

**

DAS
6
9-89

MAY 31 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

494

M135058

232

M136182

40

M136866

222

ST263

128

M136866

128

137412

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :					
Misidentified ☐	Past Due ☐						



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR.

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:
N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159983 McJ
1704-20

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AERIAL INDUSTRIES. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT PERMISSION OF AERIAL INDUSTRIES. DATA AERIAL INDUSTRIES IS THE SOLE PROPERTY OF AERIAL INDUSTRIES.

NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND HILET EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE

4. VENDOR: MCMASTER-CARR P/N 75935A551.

5. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.

6. VENDOR: R.S. HUGHES P/N 021200.24216.

7. REUSE FASTENERS FROM F/N 1.

8. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

9. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

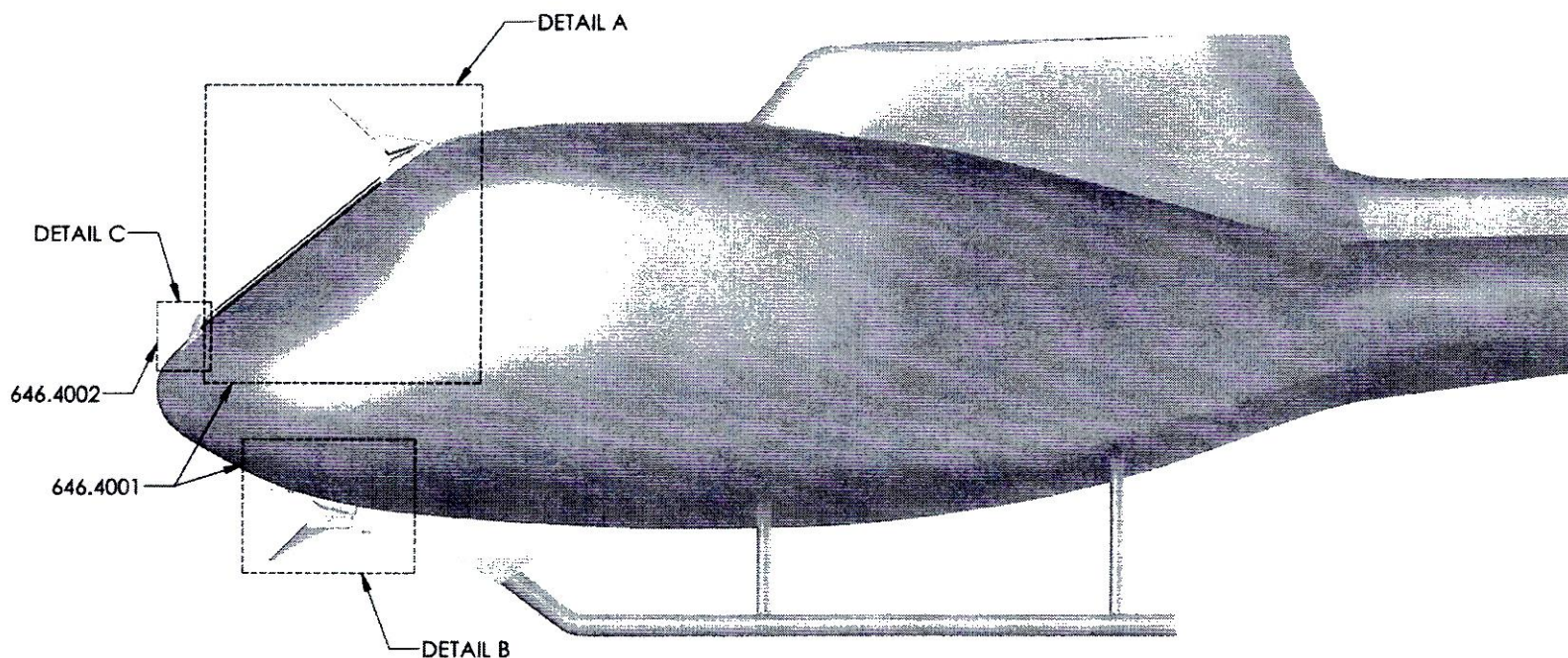
10. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT, REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78.

11. REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 42 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

12. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY

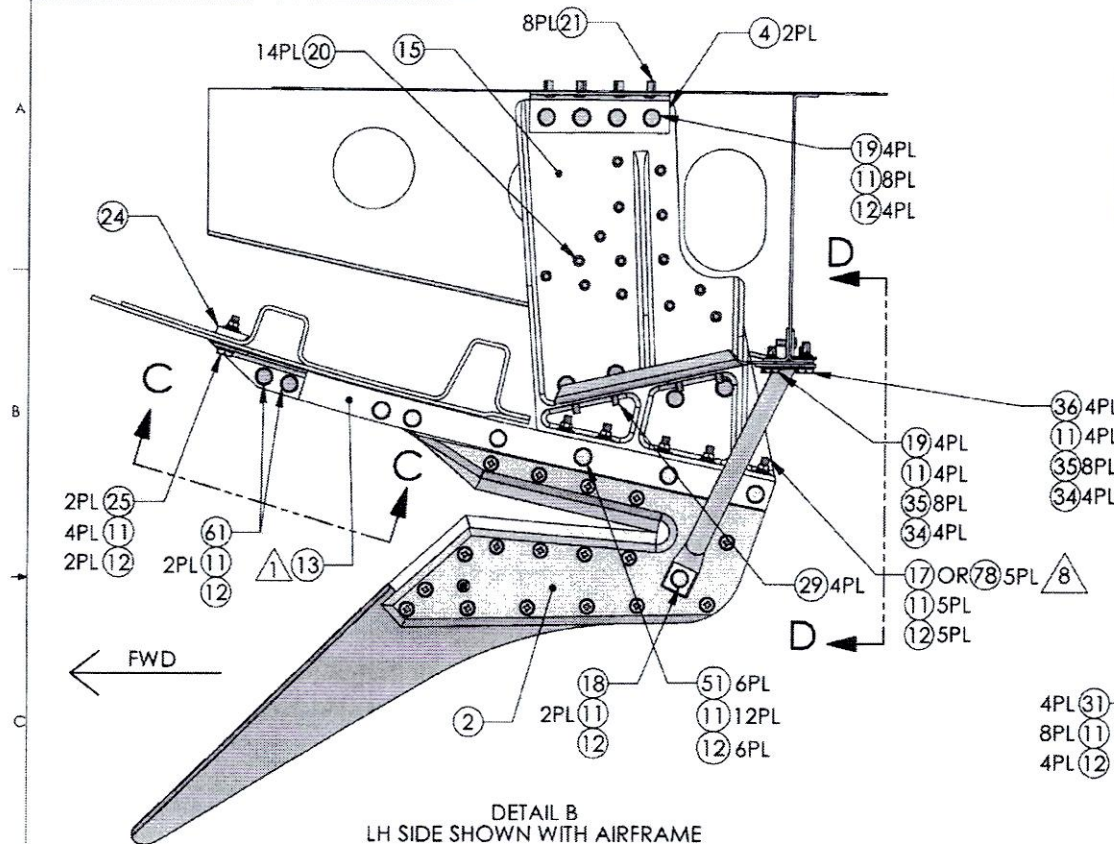
4006	4005	4004	4003	4002	4001	4000	3999	3998	3997	3996	3995	3994	3993	3992	3991	3990	3989	3988	3987	3986	3985	3984	3983	3982	3981	3980	3979	3978	3977	3976	3975	3974	3973	3972	3971	3970	3969	3968	3967	3966	3965	3964	3963	3962	3961	3960	3959	3958	3957	3956	3955	3954	3953	3952	3951	3950	3949	3948	3947	3946	3945	3944	3943	3942	3941	3940	3939	3938	3937	3936	3935	3934	3933	3932	3931	3930	3929	3928	3927	3926	3925	3924	3923	3922	3921	3920	3919	3918	3917	3916	3915	3914	3913	3912	3911	3910	3909	3908	3907	3906	3905	3904	3903	3902	3901	3900	3899	3898	3897	3896	3895	3894	3893	3892	3891	3890	3889	3888	3887	3886	3885	3884	3883	3882	3881	3880	3879	3878	3877	3876	3875	3874	3873	3872	3871	3870	3869	3868	3867	3866	3865	3864	3863	3862	3861	3860	3859	3858	3857	3856	3855	3854	3853	3852	3851	3850	3849	3848	3847	3846	3845	3844	3843	3842	3841	3840	3839	3838	3837	3836	3835	3834	3833	3832	3831	3830	3829	3828	3827	3826	3825	3824	3823	3822	3821	3820	3819	3818	3817	3816	3815	3814	3813	3812	3811	3810	3809	3808	3807	3806	3805	3804	3803	3802	3801	3800	3799	3798	3797	3796	3795	3794	3793	3792	3791	3790	3789	3788	3787	3786	3785	3784	3783	3782	3781	3780	3779	3778	3777	3776	3775	3774	3773	3772	3771	3770	3769	3768	3767	3766	3765	3764	3763	3762	3761	3760	3759	3758	3757	3756	3755	3754	3753	3752	3751	3750	3749	3748	3747	3746	3745	3744	3743	3742	3741	3740	3739	3738	3737	3736	3735	3734	3733	3732	3731	3730	3729	3728	3727	3726	3725	3724	3723	3722	3721	3720	3719	3718	3717	3716	3715	3714	3713	3712	3711	3710	3709	3708	3707	3706	3705	3704	3703	3702	3701	3700	3699	3698	3697	3696	3695	3694	3693	3692	3691	3690	3689	3688	3687	3686	3685	3684	3683	3682	3681	3680	3679	3678	3677	3676	3675	3674	3673	3672	3671	3670	3669	3668	3667	3666	3665	3664	3663	3662	3661	3660	3659	3658	3657	3656	3655	3654	3653	3652	3651	3650	3649	3648	3647	3646	3645	3644	3643	3642	3641	3640	3639	3638	3637	3636	3635	3634	3633	3632	3631	3630	3629	3628	3627	3626	3625	3624	3623	3622	3621	3620	3619	3618	3617	3616	3615	3614	3613	3612	3611	3610	3609	3608	3607	3606	3605	3604	3603	3602	3601	3600	3599	3598	3597	3596	3595	3594	3593	3592	3591	3590	3589	3588	3587	3586	3585	3584	3583	3582	3581	3580	3579	3578	3577	3576	3575	3574	3573	3572	3571	3570	3569	3568	3567	3566	3565	3564	3563	3562	3561	3560	3559	3558	3557	3556	3555	3554	3553	3552	3551	3550	3549	3548	3547	3546	3545	3544	3543	3542	3541	3540	3539	3538	3537	3536	3535	3534	3533	3532	3531	3530	3529	3528	3527	3526	3525	3524	3523	3522	3521	3520	3519	3518	3517	3516	3515	3514	3513	3512	3511	3510	3509	3508	3507	3506	3505	3504	3503	3502	3501	3500	3499	3498	3497	3496	3495	3494	3493	3492	3491	3490	3489	3488	3487	3486	3485	3484	3483	3482	3481	3480	3479	3478	3477	3476	3475	3474	3473	3472	3471	3470	3469	3468	3467	3466	3465	3464	3463	3462	3461	3460	3459	3458	3457	3456	3455	3454	3453	3452	3451	3450	3449	3448	3447	3446	3445	3444	3443	3442	3441	3440	3439	3438	3437	3436	3435	3434	3433	3432	3431	3430	3429	3428	3427	3426	3425	3424	3423	3422	3421	3420	3419	3418	3417	3416	3415	3414	3413	3412	3411	3410	3409	3408	3407	3406	3405	3404	3403	3402	3401	3400	3399	3398	3397	3396	3395	3394	3393	3392	3391	3390	3389	3388	3387	3386	3385	3384	3383	3382	3381	3380	3379	3378	3377	3376	3375	3374	3373	3372	3371	3370	3369	3368	3367	3366	3365	3364	3363	3362	3361	3360	3359	3358	3357	3356	3355	3354	3353	3352	3351	3350	3349	3348	3347	3346	3345	3344	3343	3342	3341	3340	3339	3338	3337	3336	3335	3334	3333	3332	3331	3330	3329	3328	3327	3326	3325	3324	3323	3322	3321	3320	3319	3318	3317	3316	3315	3314	3313	3312	3311	3310	3309	3308	3307	3306	3305	3304	3303	3302	3301	3300	3299	3298	3297	3296	3295	3294	3293	3292	3291	3290	3289	3288	3287	3286	3285	3284	3283	3282	3281	3280	3279	3278	3277	3276	3275	3274	3273	3272	3271	3270	3269	3268	3267	3266	3265	3264	3263	3262	3261	3260	3259	3258	3257	3256	3255	3254	3253	3252	3251	3250	3249	3248	3247	3246	3245	3244	3243	3242	3241	3240	3239	3238	3237	3236	3235	3234	3233	3232	3231	3230	3229	3228	3227	3226	3225	3224	3223	3222	3221	3220	3219	3218	3217	3216	3215	3214	3213	3212	3211	3210	3209	3208	3207	3206	3205	3204	3203	3202	3201	3200	3199	3198	3197	3196	3195	3194	3193	3192	3191	3190	3189	3188	3187	3186	3185	3184	3183	3182	3181	3180	3179	3178	3177	3176	3175	3174	3173	3172	3171	3170	3169	3168	3167	3166	3165	3164	3163	3162	3161	3160	3159	3158	3157	3156	3155	3154	3153	3152	3151	3150	3149	3148	3147	3146	3145	3144	3143	3142	3141	3140	3139	3138	3137	3136	3135	3134	3133	3132	3131	3130	3129	3128	3127	3126	3125	3124	3123	3122	3121	3120	3119	3118	3117	3116	3115	3114	3113	3112	3111	3110	3109	3108	3107	3106	3105	3104	3103	3102	3101	3100	3099	3098	3097	3096	3095	3094	3093	3092	3091	3090	3089	3088	3087	3086	3085	3084	3083	3082	3081	3080	3079	3078	3077	3076	3075	3074	3073	3072	3071	3070	3069	3068	3067	3066	3065	3064	3063	3062	3061	3060	3059	3058	3057	3056	3055	3054	3053	3052	3051	3050	3049	3048	3047	3046	3045	3044	3043	3042	3041	3040	3039	3038	3037	3036	3035	3034	3033	3032	3031	3030	3029	3028	3027	3026	3025	3024	3023	3022	3021	3020	3019	3018	3017	3016	3015	3014	3013	3012	3011	3010	3009	3008	3007	3006	3005	3004	3003	3002	3001	3000	2999	2998	2997	2996	2995	2994	2993	2992	2991	2990	2989	2988	2987	2986	2985	2984	2983	2982	2981	2980	2979	2978	2977	2976	2975	2974	2973	2972	2971	2970	2969	2968	2967	2966	2965	2964	2963	2962	2961	2960	2959	2958	2957	2956	2955	2954	2953	2952	2951	2950	2949	2948	2947	2946	2945	2944	2943	2942	2941	2940	2939	2938	2937	2936	2935	2934	2933	2932	2931	2930	2929	2928	2927	2926	2925	2924	2923	2922	2921	2920	2919	2918	2917	2916	2915	2914	2913	2912	2911	2910	2909	2908	2907	2906	2905	2904	2903	2902	2901	2900	2899	2898	2897	2896	2895	2894	2893	2892	2891	2890	2889	2888	2887	2886	2885	2884	2883	2882	2881	2880	2879	2878	2877	2876	2875	2874	2873	2872	2871	2870	2869	2868	2867	2866	2865	2864	2863	2862	2861	2860	2859	2858	2857	2856	2855	2854	2853	2852	2851	2850	2849	2848	2847	2846	2845	2844	2843	2842	2841	2840	2839	2838	2837	2836	2835	2834	2833	2832	2831	2830	2829	2828	2827	2826	2825	2824	2823	2822	2821	2820	2819	2818	2817	2816	2815	2814	2813	2812	2811	2810	2809	2808	2807	2806	2805	2804	2803	2802	2801	2800	2799	2798	2797	2796	2795	2794	2793	2792	2791	2790	2789	2788	2787	2786	2785	2784	2783	2782	2781	2780	2779	2778	2777	2776	2775	2774	2773	2772	2771	2770	2769	2768	2767	2766	2765	2764	2763	2762	2761	2760	2759	2758	2757	2756	2755	2754	2753	2752	2751	2750	2749	2748	2747	2746	2745	2744	2743	2742	2741	2740	2739	2738	2737	2736	2735	2734	2733	2732	2731	2730	2729	2728	2727	2726	2725	2724	2723	2722	2721	2720	2719	2718	2717	2716	2715	2714	2713	2712	2711	2710	2709	2708	2707	2706	2705	2704	2703	2702	2701	2700	2699	2698	2697	2696	2695	2694	2693	2692	2691	2690	2689	2688	2687	2686	2685	2684	2683	2682	2681	2680	2679	2678	2677	2676	2675	2674	2673	2672	2671	2670	2669	2668	2667	2666	2665	2664	2663	2662	2661	2660	2659	2658	2657	2656	2655	2654	2653	2652	2651	2650	2649	2648	2647	2646	2645	2644	2643	2642	2641	2640	2639	2638	2637	2636	2635	2634	2633	2632	263
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
 DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
 WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

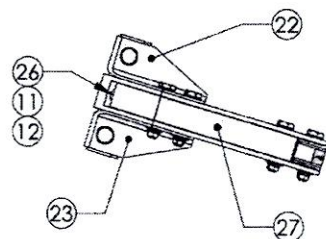


ORIGINAL DATE 08-27-08		3030 ENTERPRISE CT., SUITE A	
DRAWN BY J. HUFF		VISTA, CA. 92081	
CHECKED BY J. BRAND		(760) 724-5300	
DRAWING APPROVAL 08-27-08		APICAL INDUSTRIES INC. DBA DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
REV B	QAGE CODE 07M26	QWG. NO. 646.4000	REV C
SCALE NONE			SHEET 2 OF 5

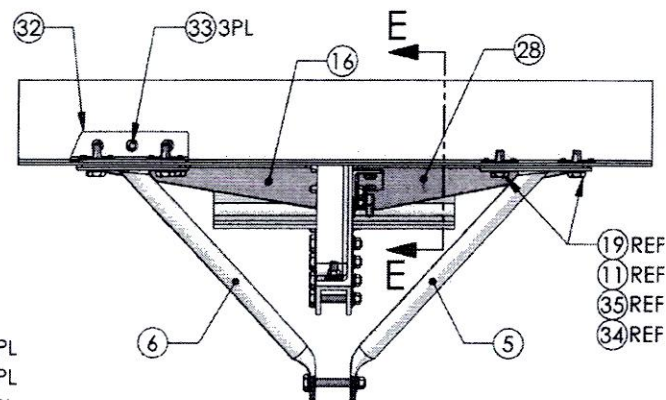
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AFICAL INDUSTRIES
 DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
 WRITTEN PERMISSION OF AFICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



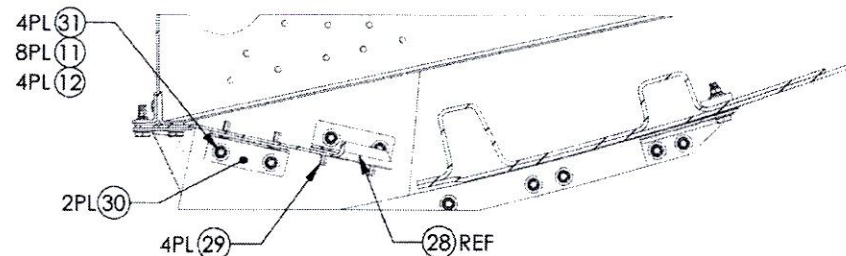
DETAIL B
 LH SIDE SHOWN WITH AIRFRAME



SECTION C-C



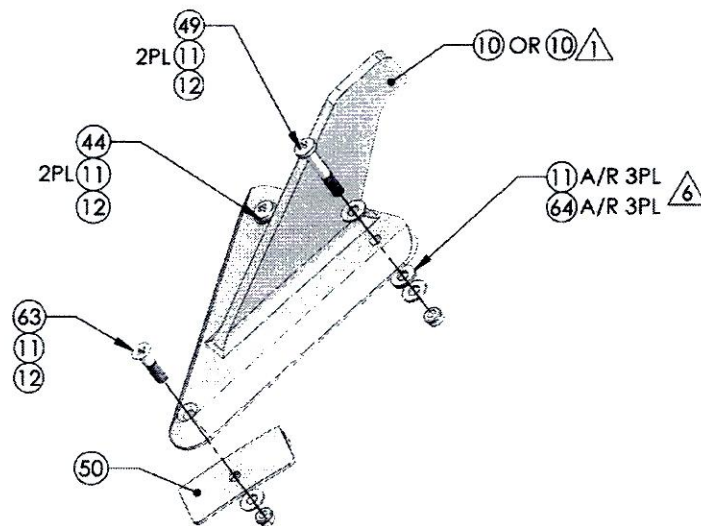
SECTION D-D
 CUTTER HIDDEN FOR CLARITY



SECTION E-E

ORIGINAL DATE 10/02/08	3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300
DRAWN BY S. RAY	CHECKED P. BRAYD
ENGINEER APPROVAL P. BRAYD	AFICAL INDUSTRIES INC. DBA DART AEROSPACE
CONTRACT NO.	AS350 CABLE CUTTERS KIT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±0.10 2 PLACE DECIMALS ±0.05 ANGLES ±1°	WGT. CAGP CODE B 07M26
	QTY. NO. 646.4000
	REV. C
SCALE NONE	SHEET 4 OF 5

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DIA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
WRITTEN PERMISSION OF APICAL INDUSTRIES/DIA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE (MO-DA-YR) 08-27-08		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY: CHECKER S. HUI		DART AEROSPACE APICAL INDUSTRIES, INC. DIA DART AEROSPACE	
DRAWING APPROVAL P. BRAVO 08-27-08		AS350 CABLE CUTTERS KIT	
CONTRACT NO.		REV. C	REV. C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .05/10 3 PLACE DECIMALS .005 ANGLES .5°		SET 07M26	QTY 646.4000
SCALE NONE		SHEET 5 OF 5	

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
2. INSTALL F/N 14 WITH F/N 52 & 53.
3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.
4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
5. REUSE FASTENERS FROM F/N 1.
6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
7. AT CUSTOMERS OPTION, INST ALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT, REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.
9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	UNINCORP				
1	1	1	77	646.9410	SHIM					
	4	4	76	601.2764	WASHER	NAS1149H83P				
	2	2	75	601.2973	LOCKNUT	MS21042-08				
	2	2	74	601.2988	SCREW	MS2703P-0813				
	2	2	73	601.2943	LOCKNUT	MS21042-3				
	2	2	72	601.3128	NUT	AN316C4R				
	2	2	71	601.3209	LOCKNUT	MS21042-4				
	4	4	70	601.2638	WASHER	NAS1149H433P				
	2	2	69	601.2669	BOLT	ANAC7A				
	2	2	68	601.3119	CLEVIS	AN445-34R				
	2	2	67	601.3121	EYE BOLT	AN44-5A				
	2	2	66	650.9201	EYE BRACKET ASSY					
REF	REF	REF	65	647.5701	GPS MOUNT KIT					
		2	64	601.3151	WASHER	NAS1149H433P				
		2	63	601.2911	SCREW	MS2448MS53				
	24	24	62	601.2637	SCREW	MS2703P-1-16				
2	2	2	61	601.2763	BOLT	AN3-12A				
	1	1	60	646.3913	SHIM					
	4	4	59	646.3912	SHIM					
	1	1	58	646.3911	SHIM					
	4	4	57	646.3910	SHIM					
	5	5	56	600.1013	PRIMER					
	8 FT	8 FT	55	600.0129	VHB TAPE					
	1	1	54	600.1012	SEALANT	PR-103 CLASS B				
	1	1	53	600.0991	MAGNEBOND 6398 PART B					
	1	1	52	600.0990	MAGNEBOND 6398 PART A					
6	10	10	51	601.2826	BOLT	A143-11A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS2703P-1-18				
	2	2	48	601.1365	SCREW	MS2703P-1-10				
	2	2	47	646.3719	DOUBLER					
		2	46	646.3718	CUSTOM WASHER					
	1	1	45	646.3717	DOUBLER					
	22	22	44	601.1948	SCREW	MS2703P-1-19				
	2	2	43	601.1952	SCREW	MS2703P-1-20				
	4	4	42	601.1956	SCREW	MS2703P-1-21				
4036	4035	4034	4033	4032	4031	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02179, 02311, 02771 & 02745	05/08/2010	P. BRAVO
B	INCORPORATED ECN 02844, 02879 & 04751	11/04/2011	P. BRAVO
C	INCORPORATED ECN 02899	01/05/2013	F. BRAVO

		2	2	41	601.2829	SCREW	MS2448MS5A			
		2	2	40	601.2831	RIVET	MS2042GADS-7			
		1	1	39	646.3716	GAUGE BRACKET				
		6	6	38	601.1953	SCREW	MS2703P-1-12			
	2	2	2	37	646.3715	STRUT DOUBLER				
	2	2	2	36	601.2824	BOLT	AN3-5A			
12	36		36	35	601.2277	RIVET	CC3448MS302			
6	18		18	34	600.0795	NUTPLATE	MS27047-3			
3	3		3	33	601.2565	RIVET	MS2047BADS-7			
1	1		1	32	646.3813	STRUT BRACKET				
4	4		4	31	601.2822	BOLT	AN3-5A			
2	2		2	30	646.3812	GUSSET BRACKET				
8	8		8	29	601.2564	RIVET	MS2047GADS-6			
1	1		1	28	646.3714	GUSSET				
	1	1	1	27	646.3610	FILLER				
	3	3	3	26	601.2830	SCREW	MS2448MS55			
	2	2	2	25	601.2825	BOLT	AN3-6A			
	1	1	1	24	646.3811	RADIUS BLOCK				
	1	1	1	23	646.3712	CLIP				
	1	1	1	22	646.3711	CLIP				
				21	601.2832	RIVET				
8	8		8	20	601.2020	RIVET	MS2047GADS-4			
14	14		14	20	601.2020	RIVET	CC3713-5-3			
4	6	4	6	19	601.2823	BOLT	AN3-6A			
	1	1	1	18	601.2827	BOLT	AN3-13A			
	5	5	5	17	601.2912	SCREW	MS2448MS51			
1	1		1	16	646.3713	GUSSET				
1	1		1	15	646.3210	SUPPORT				
	1		1	14	646.3710	DOUBLER				
	1	1	1	13	646.3110	CHANNEL				
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS27042-3	
16	32	18	120	16	144	11	601.1407	WASHER	NAS1149H83P	
						10	646.3410	LH WIPER DEFLECTOR		
						9	646.3411	RH WIPER DEFLECTOR		
		2	2	8			647.7703	STRUT ASSY		
		2	2	7			647.0112	STRUT BRACKET		
	1	1	1	6			646.3511	STRUT		
	1	1	1	5			646.3510	STRUT		
2	2		2	4			646.3810	BRACKET		
		1	1	3			646.2910	DEFLECTOR		
	1	1	1	2			646.3001	LOWER CUTTER ASSY		
		1	1	1			646.3301	UPPER CUTTER ASSY		
X							646.4006	LOWER CUTTER FIXED PROVISIONS		
	X						646.4005	LOWER CUTTER REMOVABLE PROVISIONS		
		X					646.4004	FIXED PROVISIONS KIT		
			X				646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS		
				X			646.4002	AS350 WIPER DEFLECTOR KIT		
				X			646.4001	AS350 CABLE CUTTERS KIT		
.4006	.4003	.4004	.4003	.4002	.4001	FIND #	PART #	DESCRIPTION	MATL.	SPEC.

QTY		PARTS LIST	
NEXT ASSY (S)	ORIGINAL DATE	3030 ENTERPRISE CT.	
	DATE BY	SURE A	
	BY	VISTA, CA 92081	
	DRAWING APPROVAL	(760) 724-5300	
	BY		
	DATE		
UNLESS OTHERWISE SPECIFIED		AS350 CABLE CUTTERS KIT	
DIMENSIONS ARE IN INCHES		REV C	
2 PLACE DECIMALS UNLESS		SCALE NONE	
1 INCHES = 5"		SHEET 1 OF 8	

Work Order ID 159983

159983

Thursday, April 20, 2017 10:13:25 AM

Item ID: 646.4001

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop *NS2*

Item Name: AS350 Cable Cutter System

Start Date: 5/12/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/18/2017 Req'd Qty: 1.00

1

Customer:

Reference: (P.A.)SCHEDULED/C

Run Start

NR1

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

CB

JUN 01 2017

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SR02180LA

This Certificate issued to Apical Industries, Inc. dba Dart Aerospace
3030 Enterprise Court, Suite A
Vista, CA 92081

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified herein meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.*

**Certification basis is set forth in Type Certificate Data Sheet H9EU.*

Original Product Type Certificate Number: H9EU

Make: Eurocopter France

Model: AS350 C, D, D1, B, B1, B2, BA, B3

Description of Type Design Change: Installation of a Cable Cutter Kit in accordance with FAA approved Apical Master Document List, MD350-61, Revision A, dated November 25, 2008, or later FAA approved revision.

Limitations and Conditions: The installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. The approval of this modification applies to the above noted aircraft model series only. This approval requires the inspections and overhaul schedules to be performed as mandated by Apical Industries, Inc.'s Instructions for Continued Airworthiness, ICA350-61, Revision N/C, dated November 20, 2008, or later FAA accepted revision. A copy of this STC must be included in the permanent records of the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: May 21, 2008

Date received: August 7, 2014

Date of issuance: December 16, 2008

Date amended:



By direction of the Administrator

Haifa Haj-Eid
(Signature)

Haifa Haj-Eid
Supervisor, Technical and Administrative
Support Staff
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.